CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATEMENT OF INVESTMENT POLICY

FOR INTERNALLY MANAGED GLOBAL ENHANCED EQUITY STRATEGIES— INTERNALLY MANAGED

March 13, 2006 March 17, 2008

This Policy is effective immediately upon adoption and supersedes all previous <u>Internally Managed gG</u>lobal e<u>E</u>nhanced e<u>E</u>quity <u>sS</u>trategies <u>- internally managed</u> investment policies.

I. PURPOSE

The CalPERS Total Fund Statement of Investment Policy, adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS' overarching investment purposes and objectives with respect to all its investment programs.

This document sets forth the investment policy ("the Policy") for the Global Enhanced Equity Strategies - Internally Managed ("the Strategies"). The design of this Policy ensures that investors, managers, consultants, <u>and or</u> other participants selected by the California Public Employees' Retirement System ("<u>CalPERSthe System</u>") take prudent and careful action while managing the Strategies. Additionally, use of this Policy <u>provides assurance that there is assures</u> sufficient flexibility in <u>managing controlling</u> investment risks and <u>returns associated with the Strategies capturing investment opportunities.</u>

II. STRATEGIC OBJECTIVE

<u>The strategic objective of the Strategies is to Ddiversifying</u> the global equity segment through risk-controlled, value-added strategies with a low correlation of returns to <u>CalPERS'the System's</u> other active and <u>passive investments</u>, is the strategic objective of the Strategies.

The Strategies shall be managed to accomplish the following:

- <u>1.A.</u> Enhance <u>CalPERS'the System's</u> total return;
- 2B. Hedge against active (pre-retirement) liabilities; and.
- 3<u>C</u>. Provide diversification to <u>CalPERS'the System's</u> overall investment program.; and

<u>INTERNALLY MANAGED</u> GLOBAL ENHANCED EQUITY STRATEGIES—INTERNALLY MANAGED Page 2 of 12

4. Consider solely the interests of the System's participants and their beneficiaries in accordance with California State Law. [This language is now contained in the Total Fund Statement of Investment Policy.]

III. RESPONSIBILITIES AND DELEGATIONS

- A. The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy. The Investment Committee delegates the responsibility for administering the Strategies portion of the System through the Delegations of Authority (Delegation Nos. 89-13 and 95-50).
- <u>AB</u>. The System's <u>CalPERS'</u> Investment Staff ("the Staff") duties include, but are not limited to, is responsible for the following:
 - 1. <u>All aspects of portfolio management including monitoring, analyzing, and evaluating performance relative to the appropriate benchmark.</u> Developing and recommending the Policy to the Investment Committee:
 - Reporting internally to senior management concerning the implementation of this Policy. The Staff's report shall be prepared monthly and shall include, but not be limited to the following:
 - a. Current market value of the strategies:
 - b. Performance of the strategies versus the benchmark(s) as reported by the master custodian; and
 - c. Performance attribution analysis that attributes return to its causes.
 - 32. Reporting to the Committee as needed about the performance of the Strategies. The General Pension Consultant is responsible for reporting quarterly to the Committee, as described in section III.B. Maintaining a procedures manual for each portfolio, subject to periodic reviews and updates, outlining Staff operational procedures used in implementing this Policy;
 - 43. Monitoring the implementation of, and compliance with, the Policy. Staff shall report material concerns, problems, changes, and all violations of Policies at the next Committee meeting, or sooner if deemed necessary. These reports shall include explanations of the violations and appropriate recommendations for corrective action. Implementing and adhering to the Policy;

<u>INTERNALLY MANAGED</u> <u>GLOBAL ENHANCED EQUITY STRATEGIES – INTERNALLY MANAGED</u> Page 3 of 12

- 4. Reporting all violations of the Policy immediately to the Investment Committee. The Staff's report shall include explanations and recommendations:
- 5. Purchasing only those securities that are outlined in the Policy.; and
- Reporting internally to senior management concerning the implementation of this Policy. The Staff's report shall be prepared monthly and shall include, but not be limited to the following:
 - a. Current market value of the portfolio(s);
 - b. Performance of the portfolio(s) versus the Benchmark(s); and
 - Performance attribution analysis that attributes return to its causes.
- <u>BC</u>. The General Pension Consultant ("General Pension Consultant") is responsible for:

mMonitoring, and evaluating, and reporting quarterly, to the Committee, on the performance of the Strategiesportfolio(s) relative to the benchmark and policyand making reports concerning the performance to the Investment Committee. The General Pension Consultant shall report to the Investment Committee, at least quarterly, the performance relative to the Benchmark and Policy guidelines. The General Pension Consultant is responsible for reporting any non-compliance issues in accordance with its responsibilities under its contract with Calperstee.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

Enhancing the return of a portion of the Internally Managed Global Equity Index Funds is the performance objective of the Strategies. The performance objective shall be accomplished by seeking to maximize a portfolio's active return within a specified active risk level.

Independent sources are responsible for maintaining the benchmarks as well as calculating and reporting the return of the benchmarks to <u>CalPERSthe System</u>.

A. Domestic Quantitative Factor Model: The benchmark for the Fund shall be entitled the "CalPERS Custom Dow Jones Wilshire 2500 Index". This custom benchmark shall be constructed and maintained by Wilshire Associates. It shall be defined as the top 2500 securities of the Dow Jones Wilshire 5000 (excluding REITS and tobacco stocks) with dividends reinvested, and be based on market capitalization and annual

<u>INTERNALLY MANAGED</u> <u>GLOBAL ENHANCED EQUITY STRATEGIES—INTERNALLY MANAGED</u> Page 4 of 12

<u>reconstitution</u>. Its composition shall provide broad market exposure to the total U.S. equity market while minimizing transaction costs.

B. Fundamental Factor Models:

The benchmark for the domestic portion of the <u>sS</u>trategy shall be entitled the "CalPERS Custom <u>Dow Jones</u> Wilshire 2500 Index" described above. The benchmark for the international portion of the <u>sS</u>trategy shall be entitled the "CalPERS Financial Times Stock Exchange (FTSE) All World, Developed, ex US, ex Tobacco, <u>Capitalization Weighted</u> Index".—The markets included are limited to the countries in the System's Permissible Country Equity Policy and is calculated on an unhedged basis.

V. INVESTMENT APPROACH AND PARAMETERS

A. Investment Approach (Domestic Quantitative Factor Model)

The Domestic Quantitative Factor Model portfolio is an active strategy utilizing statistical techniques to define common market factors forming excess return forecasts. To achieve the stated performance objective, the Strategy uses four components in the active equity investment process: Stock Selection, Risk Control, Transaction Cost Control, and Portfolio Construction. The four components are described as follows:

1. Stock Selection

The Strategy uses a quantitative stock selection model to estimate the expected relative return of all stocks within the stock selection universe. The stock selection universe shall be the <u>Dow Jones</u> Wilshire 5000 Index. The stock selection strategy shall diversify across many different types of factors to avoid heavy reliance on any one source of returns should a factor underperform for an extended period. The expected <u>factor returns</u> in the stock selection strategies shall adapt over time with the realized factor returns.

2. Risk Control

The initial target level of risk in the <u>active portfolio</u> shall be 50 basis points above the base level of active risk in the set of instruments used to mimic the Benchmark. The maximum target level of risk in the active portfolio shall be 300 basis points above the base level of active risk in the set of instruments used to mimic the Benchmark.

The level of exposure to <u>common factors</u> associated with undesirable risk in the active portfolio shall be minimized by applying an increasing penalty to such exposures. Holding a large

<u>INTERNALLY MANAGED GLOBAL ENHANCED EQUITY STRATEGIES – INTERNALLY MANAGED</u> Page 5 of 12

number of stocks shall diversify the level of <u>specific risk</u> in the active portfolio. Additionally, the percentage weight of any stock in the active portfolio shall be constrained to be less than $\pm 2\%$ to further control the specific risk of individual stock positions.

3. Transaction Cost Control and Trading Activity

A model of the fixed and variable transaction costs shall be used to offset expected returns by the costs of trading. As a result of such action, the amount of portfolio turnover shall be determined within the <u>optimization</u> process. The forecast of trading cost for each stock shall be based on it's bid/ask spread, historical volume and volatility, and the market center in which it is traded.

The Strategy shall use a variety of trading techniques and liquidity sources to obtain best execution of the trade list.

4. Portfolio Construction

At least monthly, an optimization process shall be performed. The optimization process shall ensure that valuable, time-sensitive stock selection information is implemented in a timely manner and that the portfolio risk characteristics are adequately controlled. CalPERS The System shall continually monitor and improve the estimates for expected returns, risks, and transaction costs in order to maximize the actual value added to the Strategy from the active investment process.

B. Investment Approach (Fundamental <u>Factor Weighting Model</u>)

The Fundamental Weighting Model portfolio is a strategy utilizing company-specific accounting measures to determine security weights. To achieve the stated performance objective, the Strategies use three components in the active equity investment process: Stock Selection, Risk Control, and Portfolio Construction. The three components are described as follows:

1. Stock Selection

Portfolios managed utilizing fundamental factors shall have security selection and weights derived from parameters measuring a company's business success. Currently the parameters used are company sales, book value, dividend yield, and cash flow. The specific parameters and method of calculation of security weights shall evolve over time, dependent on the efficacy of the model.

<u>INTERNALLY MANAGED GLOBAL ENHANCED EQUITY STRATEGIES — INTERNALLY MANAGED</u> Page 6 of 12

2. Risk Control

The expected tracking variance of fundamental factor based portfolios versus market capitalization benchmarks is currently approximately 400 basis points. The mechanism for monitoring and controlling tracking variance within expectations shall be described within the <u>sS</u>trategy's procedures manual.

3. Portfolio Construction

The applied portfolio construction method shall vary as the fundamental factor strategy is deployed in different market segments. Data in the form of fundamental factor based security universes and weights shall be obtained from Research Affiliates LLC (RALLC) and FTSE. This data shall represent the raw information underlying the portfolio construction process.

The <u>sS</u>trategy shall use discrete portfolios in the domestic and international regions. This division is in recognition of the different benchmarks CalPERS applies to these segments and also to facilitate maintenance of the domestic / international global equity asset allocation.

Where a portfolio resulting from an approximate replication of the fundamental factor derived weights provides an acceptable expected tracking variance, this shall be the construction method utilized. Should a replication of the fundamental factor weights result in expected tracking variance exceeding anticipated levels, alternate portfolio construction methods such as <u>sampling</u> and optimization shall be used to control the expected tracking variance.

C. Specific Risk Parameters

Specific risk parameters shall limit the <u>return deviation</u> of the Portfolio(s) versus the benchmark. <u>Use of a A-number of different models shall ensure</u> that the risk parameters are within an acceptable tolerance level to achieve the performance objectives. Since <u>CalPERS</u>the System shall<u>may</u> add or eliminate models, the specific risk parameters for each model are detailed in the <u>Pprocedures Mmanual(s)</u>.

Implementation of this program shall comply at all times with <u>CalPERS'the</u> System's investment policies including, but not limited to, the following:

Emerging Equity Market Principles Permissible Country Equity Policy;

<u>INTERNALLY MANAGED</u> <u>GLOBAL ENHANCED EQUITY STRATEGIES – INTERNALLY MANAGED</u> Page 7 of 12

- 2. Foreign Exchange Guidelines;
- <u>23</u>. Statement of Investment Policy: <u>Development of Derivatives Strategies Investment Office</u>; and
- <u>3</u>4. Proxy Voting Policies.

D. Restrictions

The Portfolios may not purchase the securities of primary tobacco companies as identified by the Investor Responsibility Research Center Tobacco Company List.—In addition, the portfolios will, at all times, comply with the System's investment policies including permissible countries, foreign exchange guidelines, derivatives policies, and proxy voting policies.

E. Permissible Securities

- Equity and associated securities of global publicly traded companies.
- Derivatives, as detailed in Section VII.

F. Corporate Actions

Corporate actions (e.g., <u>tender offers</u>, <u>mergers</u>, <u>Dutch-auctions</u>, or <u>spin-offs</u>) shall be handled on a case-by-case basis.

Companies which offer discount <u>Dividend Reinvestment Programs</u> (DRIP) and similar programs will be analyzed to determine if return enhancement can be added by participating in such programs.

G. Strategy Monitoring Attribution Analyses

A monthly reporting package shall be prepared for each strategy by the Internal Equity staff assigned to manage the strategy. The reports to be included shall be those needed and appropriate to allow monitoring by more senior Internal Equity staff of the management process, risk acceptance and performance of each strategy. This reporting package may vary depending on the management process, benchmark and performance objective unique to each strategy and shall be described in the procedures manual.

The Consultant shall include strategy level information in their quarterly report to the Committee.

<u>INTERNALLY MANAGED</u> <u>GLOBAL ENHANCED EQUITY STRATEGIES – INTERNALLY MANAGED</u> Page 8 of 12

Cash, liquidity, <u>active performance</u>, and <u>risk characteristics of the portfolios shall be monitored and reported through the attribution reports described below in-numbers one through three. The reports shall determine any necessary rebalancing of the actual portfolio or additional model research due to issues highlighted in these reports.</u>

Performance Attribution Report

A performance attribution report shall be generated monthly decomposing active performance into that due to common factors, including industries, and that due to stock-specific sources.

Forecasted Risk Attribution Report

A risk-attribution report shall be generated monthly decomposing the forecasted active risk into that due to common factors, including industries, and that due to stock-specific sources.

Cash Position Report

A cash report shall be generated monthly displaying the account equity, long, short, and net cash balances, and the leverage ratio.

4. Liquidity Report

A liquidity report shall be generated monthly displaying the percentage of total market capitalization of each stock held. The report shall also display the percentage of one-month average daily trading volume, on a total and active basis, and on a portfolio and individual name basis.

VI. CALCULATIONS AND COMPUTATIONS BENCHMARKS

Investors, managers, consultants, and other participants selected by CalPERS shall make all calculations and computations on a market value basis as recorded by CalPERS' <u>Custodian</u>.

Independent sources are responsible for maintaining the benchmarks as well as calculating and reporting the return of the benchmarks to the System.

C.Domestic Factor Model: The benchmark for the Fund shall be entitled the "CalPERS Custom Wilshire 2500 Index". This custom benchmark shall be constructed and maintained by Wilshire Associates. It shall be defined as the top 2500 securities of the Wilshire 5000 (excluding REITS and tobacco stocks) with dividends reinvested, and be based on market capitalization

<u>INTERNALLY MANAGED</u> <u>GLOBAL ENHANCED EQUITY STRATEGIES – INTERNALLY MANAGED</u> Page 9 of 12

and annual reconstitution. Its composition shall provide broad market exposure to the total U.S. equity market while minimizing transaction costs.

D.Fundamental Factor Models:

The benchmark for the domestic portion of the strategy shall be entitled the "CalPERS Custom Wilshire 2500 Index" described above. The benchmark for the international portion of the strategy shall be entitled the "CalPERS Financial Times Stock Exchange (FTSE) All World, Developed, ex US, ex Tobacco, <u>Capitalization Weighted</u> Index". The markets included are limited to the countries in the System's Permissible Country Equity Policy and is calculated on an unhedged basis.

VII.GENERAL

Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System's Custodian.

VIII. <u>DERIVATIVES</u> AND <u>LEVERAGE</u> POLICY

A. Strategies

Leverage may be used in the form of borrowed securities. In cases where the Benchmark portfolio does not contain a large enough percentage of the stock to facilitate the desired percentage of underweighting relative to the Benchmark, borrowing the securities from a broker and selling them short can facilitate the additional desired underweighting. The proceeds from the sale of these borrowed securities shall be used to finance the offsetting overweighting of other stocks relative to the Benchmark; consequently, the Strategy remains fully invested.

Financial <u>futures</u>, <u>options</u>, and <u>swaps may be utilized in the portfolio</u>, in accordance with the System's Derivatives Policy, as it may be amended, for the following purposes:

The Fund may utilize financial futures, equity swaps and options in the Portfolio for the following purposes:

- To permit Permitting the investment of dividends received;
- 2. To equitize Equitizing cash and dividends receivable;
- 3. To allow Allowing adjustment of the Portfolio's risk characteristics in the most cost effective manner available; and,

4. <u>To facilitate Facilitating investment of cash flows related to contributions, withdrawals, or asset allocation compliance.</u>

B. Justification

Justification for the above mentioned strategies includes the following:

1. Leverage

Necessary to achieve underweights of stocks in the portfolio through short-selling of securities, in accordance with the strategic objective of obtaining the highest active return at the specified target active risk level.

- Derivatives
- <u>a.1.</u> Reducing Comparing lower transaction costs in comparison to with the purchase of underlying securities;
- <u>b.2.</u> Equitizing non-spendable cash exposures (e.g. dividend accruals) to get a highly correlated return on that component of the Portfolio(s);
- <u>e.3.</u> Providing the ability to alter risk characteristics versus the benchmark without disrupting the underlying Portfolio(s) or unnecessarily increasing turnover; and,
- d.4. Obtaining matched returns between the benchmark and the Portfolio(s) through investment in custom equity swaps and currency forwards.

C. Restrictions

Restrictions on the above mentioned strategies include the following:

- 1. Writing uncovered calls is prohibited;
- 2. Leveraging is prohibited. The use of futures contracts as specified in this Policy will not constitute leverage;
- With the exception of equity swaps and currency forwards, trading non-exchange traded derivatives is prohibited;
- 4. <u>Speculating</u> is prohibited;
- 5. Use of non-<u>CFTC</u> approved futures contracts is prohibited; and

<u>INTERNALLY MANAGED</u> GLOBAL ENHANCED EQUITY STRATEGIES—INTERNALLY MANAGED Page 11 of 12

6. Portfolio specific position limits will be established and monitored as detailed in the applicable procedures manual.

D. Permissible Derivatives

Derivatives utilized in the index Portfolios may include, but are not limited to the following:

- 1. Index futures;
- 2. Style futures;
- 3. Index options;
- 4. Currency forwards; and
- 5. Equity swaps;
- 6. Exchange Traded Funds (ETF); and
- 7. Closed End Funds.

E. Futures Commission Merchants (FCM)

Futures Commission Merchants are selected with the following broad range of criteria:

- 1. Low cost clearing and executing charges;
- 2. Securely capitalized firm;
- 3. Clear account statements and efficient reconciliation;
- 4. Responsive personnel;
- 5. Discrete and efficient operation;
- 6. Personal interview; and
- 7. Reference checks.

<u>IX.VIII.</u> GLOSSARY OF TERMS

<u>INTERNALLY MANAGED</u> <u>GLOBAL ENHANCED EQUITY STRATEGIES – INTERNALLY MANAGED</u> Page 12 of 12

Definitions for k<u>K</u>ey words used in th<u>eis</u> policy are <u>defined located in the Equity</u> Glossary of Terms which is included in the System's <u>CalPERS'</u> Master Glossary of Terms.

Approved by the Policy Subcommittee: October 6, 2000
Adopted by the Investment Committee: February 20, 2001
Revised by the Policy Subcommittee: December 10, 2004
Adopted by the Investment Committee: February 14, 2005

Name eChanged to Global Enhanced Equity Strategies – Internally Managed

Revised by the Policy Subcommittee: February 10, 2005 Adopted by the Investment Committee: March 13, 2006

Name Change to Internally Managed Global Enhanced Equity Strategies

Revised by the Policy Subcommittee: March 17, 2008

Asset Class Glossary: Equities

Policy: <u>Internally Managed</u> Global Enhanced Equity Strategies - <u>Internally Managed</u> March 17, 2008

Active Investment Process

An investment process that involves a certain degree of active management as defined below. The objective of an active investment process is to outperform the broad market benchmark.

Active Performance

The return of a portfolio that is in excess of its benchmark return. This is the return of the active portfolio.

Active Portfolio

A portfolio that is <u>managed with the expectation of earning investment returns in excess</u> <u>of those earned by its benchmark.</u> comprised of all of the bets against the broad market benchmark. The objective of an active portfolio is to outperform the broad market benchmark.

Active Risk

The <u>difference in the</u> volatility of the returns <u>in an of the</u> active portfolio <u>relative to the</u> portfolio's benchmark.

Benchmark

A set of securities with associated weights that provides a passive representation of a market segment. A benchmark's return is often used as a comparative measure of a manager's performance results in an active portfolio.

CalPERS Custom <u>Dow Jones</u> Wilshire 2500 Index

The <u>Dow Jones</u> Wilshire 2500 Index, excluding <u>Real Estate Investment Trusts (REITs)</u> and tobacco stocks, and with dividends reinvested. The <u>standard Dow Jones</u> Wilshire 2500 comprises the top 2500 securities of the Dow Jones Wilshire 5000 Index, <u>including excluding-Real Estate Investment Trusts</u> and tobacco stocks, based on market capitalization, and is reconstituted annually. The Dow Jones Wilshire 5000 is an index that measures the performance of all U.S.-headquartered equity securities with readily available price data.

Capitalization Weighted

A weighting method based on the equity market capitalization of a stock. Market capitalization is calculated by multiplying the total outstanding shares of a stock by its price per share.

Cash Buffer

An amount of the portfolio funds invested in cash equivalent securities, used for varying purposes, such as to avoid the incursion of a debit balance.

Closed End Funds

These are mutual funds professionally managed by an investment company with a finite number of shares issued. Closed end funds may be considered to be a derivative instrument as a component of their unit valuation is derived from the underlying value of the investments held by the fund.

Common Factor

An element of return that influences many securities and, hence, is a "common factor" in the returns on those securities. By virtue of their common influence on many stocks, common factors contribute to market return as well as residual returns of the stocks that they influence most. Some common factors for domestic equity are capitalization, beta, price/earnings, price/book, interest sensitivity, and yield.

Common Factor Return

<u>A The portfolio's or individual asset's return component that is return</u> attributable to exposure to a particular common factor. <u>This is derived from the unique return attributed to the common factor.</u> Asset returns are decomposed into a common factor component, based on the asset's exposures to common factors times the factor returns and the specific return.

Common Factor Risk

The risk attributable to the effects of common factors.

Commodities and Futures Trading Commission (CFTC)

An agency of the U.S. federal government that regulates the U.S. commodity futures and options markets. The CFTC is responsible for insuring market integrity and protecting market participants against manipulation, abusive trading practices, and fraud.

Corporate Actions

An action taken by a company that causes a material change in structure including, but not limited to, name, price, shares, capitalization, or other such events. Typical corporate actions include tender offers, mergers, Dutch auctions, and spin-offs.

Custodian

A bank or other financial institution that provides custody <u>or safekeeping</u> of stock certificates and other assets of an institutional investor.

Derivative

An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.

Dividend Reinvestment Program

A plan offered by a corporation in which shareholders may purchase additional shares

with cash dividends on the dividend payment date. Often times the additional shares are sold at a discount and are commission free.

Dutch-Auction

A system in which the price of an item is gradually lowered until it meets a responsive bid and is sold.

Equitize

Combining cash with derivative instruments to produce returns comparable to the equity market.

Equity Swaps

An agreement between two parties dictating a swap with payments on one or both sides, linked to the performance of equities or an equity index.

Exchange Traded Fund

An exchange-traded fund (ETF) is an investment company that is legally classified as an open-end company or a Unit Investment Trusts. An ETF is not classified as a mutual fund by the Securities and Exchange Commission because of limited redeemability. A typical ETF is similar to an index fund, and will invest in either all of the securities of a selected index or a representative sample of the securities included in the index. An ETF may be considered to be a derivative instrument as a component of their unit valuation is derived from the underlying value of the investments held by the fund.

Factor Return

See Common Factor Return.

Futures

Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.

Leverage

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

Market Capitalization

A stock's current market price multiplied by the current common shares outstanding.

<u>Merger</u>

<u>The combination of two or more companies. Strictly speaking, only combinations in which one of the companies survives as a legal entity are called mergers.</u>

Optimization

The best solution among all solutions available for consideration. Constraints on the

investment problem limit the region of solutions that are considered and the objective function for the problem by capturing the investor's goals correctly, providing a criterion for comparing solutions to find the better ones. The optimal solution is the solution among those admissible for consideration that has the highest value of the objective function.

Option

Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

Passive Investment

Investing in a manner that attempts to replicate the characteristics and performance of a market index <u>or benchmark</u>. In theory, passive investing/management assures investment performance is neither worse nor better than the market as a whole. In practice, actual results differ from the results reported for the index due to transactions costs and tracking error.

Performance Attribution

The process of attributing portfolio returns to causes. It decomposes past performance into separate components or factors contained within a multi-factor model

Reconstitution

The periodic reformulation of a benchmark index which may entail the addition or deletion of securities along with changes to the parameters which determine the relative weight of included assets.

Return Deviation

The difference between the total return of a portfolio and the total return of the benchmark index.

Sampling

A method of indexation whereby a representative sample of the index constituents, rather than every share in the index, are purchased.

Short Sale

The sale of a security that is not owned by the investor but rather is borrowed from a broker. The investor eventually repays the broker in kind by purchasing the security in a subsequent transaction.

Specific Risk

<u>That component of total risk that is unique or idiosyncratic to an individual security.</u> The risk of the specific return.

Speculation

<u>Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss.</u>

Spin Offs

Companies which are created by separation from another company and begin to trade publicly on their own.

Tender Offer

A public offer to buy all or a portion of a specific security for cash, other securities, or both.

Uncovered Calls

A strategy in which an investor writes (sells) call options on the open market without owning the underlying security. This stands in contrast to a covered call strategy, where the investor owns the security shares that are eligible to be sold under the options contract.

Variance

A statistical term for the variability of a random variable about its mean. The variance is defined as the sum of the squares of the deviation from the mean.